

MULININ, N.M., kand.tekhn.nauk; DMITRIYEV, S.A., kand.tekhn.nauk;
KRASOVSKAYA, G.M., inzh.; GVOZDEV, A.A., doktor tekhn.nauk, prof.;
KLIMOVA, G.D., red.izd-va; RUDAKOVA, N.I., tekhn. red

[Temporary instructions on the use of thermally strengthened ribbed
cable in prestressed concrete elements] Vremennye ukazaniia po pri-
meneniiu termicheski uprochnennoi katanki periodicheskogo profil'ia
v predvaritel'no napriazhennykh zhelezobetonnykh konstruktsiakh.
Moskva, Gosstroizdat, 1962. 11 p. (MIRA 15:6)

1. Akademiya stroitel'stva i arkhitektury SSSR. Institut betona i
zhelezobetona, Perovo. 2. Deystvitel'nyy chlen Akaderii stroitel'stva
i arkhitektury SSSR (for Gvozdev).

(Concrete reinforcement)

MULIN, N.M., kand.tekhn.nauk; ARTEM'YEV, V.P., kand.tekhn.nauk;
BELOBROV, I.K., kand.tekhn.nauk; GUZEYEV, Ye.A., inzh.;
KRASOVSKAYA, G.M., inzh.; PETROVA, K.V., inzh.; FIGAROVSKIY, V.V., inzh.

Basis for calculating the deformations of reinforced concrete
elements in the draft of the new standards. Bet. i zhel.-bet.
8 no.11:491-498 N '62. (MIRA 15:11)
(Precast concrete)

KRASOVSKAYA, G.P.

Dynamics of the deposition of mineral phosphorus salts in the bone tissue during the taking of bone grafts. Biul. eksp. biol. i med. 40 no.11:37-40 N 155. (MLRA 9:1)

1. Iz fiziologicheskoy laboratorii (zav.-kandidat biologicheskikh nauk V.N. Filippova) Instituta travmatologii i ortopedii (dir.-doktor meditsinskikh nauk V.S. Balakina) Ministerstva zdravookhraneniya RSFSR Leningrad.

(TRANSPLANTATION, exper.
bones, deposition of mineral phosphorus salts during taking
of grafts)
(BONE TISSUE, transplantation,
phosphorus salts deposition during taking of grafts)

KRASOVSKAYA, G.P.

Dynamics of the deposition of mineral phosphorus salts in a living transplantat in radiation sickness. Khirurgiia 34 no.2:121-125
F '58. (MIRA 11:4)

1. Iz Leningradskogo instituta travmatologii i ortopedii (dir. -
prof. V.S.Balakina)

(BONE AND BONES, transpl.

dynamics of mineral phosphorus salt deposit, eff. of
radiations in rabbits (Rus))

(RADIATIONS, eff.

on mineral phosphorus salt deposit in bone transplantat
in rabbits (Rus))

(PHOSPHORUS, metab.

dynamics of mineral salt deposit in bone transplantate,
eff. of radiations in rabbits (Rus))

KRASOVSKAYA, G. P., Cand Med Sci -- (diss) "Dynamics of the deposit of phosphates in bony tissues of rabbits in the process of "acclimatization" of bone autograft." Leningrad, 1960. 16 pp; (Ministry of Public Health USSR, Central Scientific Research Inst of Medical Radiology); 250 copies; price not given; (KL, 27-60, 160)

MOVCHEV, V.A., TUREVICH, M., KILDOVSKAYA, I.

"Experiments with Foreign Carp Growth. From the Studies of the U.S.
Scientific Research Institute of Fish Culture / Introductory Information /"
Opyty po forsirovannyu rosta karpov odnolyetok. Iz rabot Uk. N.-I.
in-ta rubn. kh-va (predvaritelny svyedeniya). Rybnoye Khozyaystvo
3388, -- M., 1933, No 2, pp 35-41.

ACC NR: AP6028732

(N)

SOURCE CODE: UR/0402/66/000/004/0498/0504

AUTHOR: Zakstel'skaya, L. Ya.; Zhdanov, V. M.; Isachenko, V. I.; Krasovskaya, I. A.
ORG: Institute of Virology im. D. I. Ivanovskiy, Academy of Medical Sciences, SSSR,
Moscow (Institut virusologii AMN SSSR)

TITLE: Classification and nomenclature of influenza viruses

SOURCE: Voprosy virusologii, no. 4, 1966, 498-504

TOPIC TAGS: influenza, influenza virus, biologic classification, taxonomy, virus,
virology

ABSTRACT:

A special committee formed for the development of a unique classification and nomenclature of viruses has offered a plan in which the grouping and division of viruses is based on determination of the chemical composition and detailed anatomical structure of the viruses. The following table presents the general principles of classification:
The article also includes data concerning the antigenic relationship of the characteristic strains of influenza virus and an exemplary chart for the classification of these viruses. It

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UDC: 616.912.084.47(063)(47)«1965»

ACC NR: AP6028732

is noted that this classification serves not as an entire
system, but as a starting point for work in this area.

[WA-50; CDE No. 12]

SUB CODE: 06/ SUDM DATE: 10Feb66/ ORIG REF: 007/ OTH REF: 019/

Cord 2/2

KRASOVSKAYA, I.A.

"Thermolabile component of normal serum as a factor for intensification of specific antigen-antibody connection."

Report submitted to the Intl. Congress for Microbiology
Montreal, Canada 19-25 Aug 1962

DISPATCH, L.A., inst.; KRAMOVSKAYA, L.G., standing propagator!

Dispatcher control systems for distributing motor vehicles along
the cranes of container platforms. Trudy Iral. elektronikh. inst.
Inzh. zhel. dor. transp. no.3:26-34 '63. (MIRA 18:7)

REZER, S.M., kand. tekhn. nauk (Sverdlovsk); RAPPOPORT, M.A. (Sverdlovsk);
KRASOVSKAYA, I.G., inzh. (Sverdlovsk)

Automatic systems of dispatcher control in freight yards. Zhel. dor.
transp. 47 no.9:39-41 S '65. (MIRA 18:9)

1. Glavnyy inzh.stantsii Sverdlovsk-Tovarnyy (for Razer).
2. Nachal'nik tekhnicheskogo otdela Sverdlovskoy dorogi (for Rappoport).

S/072/63/000/004/004/005
A051/A126

AUTHORS: Krasovskaya, I. M., Kulikova, Ye. N., Engineers, Ryabov, V. A.,
Candidate of Technical Sciences

TITLE: The effect of the composition of hydrofluoric (HF) acid baths on
the hardening of silicate glass

PERIODICAL: Steklo i keramika, no. 4, 1963, 13 - 15

TEXT: A detailed study was made of the effects of HF acid concentration, temperature, the presence of salts of fluorsilicio and other acids, on the hardening of silicate glass, with main emphasis placed on the study of the concentration of the HF acid. The purpose of the study was to clarify the nature of the glass hardening process in acid baths, the chemical process taking place on the glass surface and the effect of the quality of the glass surface itself. Obtained experimental data coincide with those of Guzhavin who had found that the strength of glass depends on the concentration of the HF acid. It is concluded that the hardening of glass by processing it in a HF bath is accomplished not only by removing the defective surface layer; when studying the effect of

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2/072/63/000/004/004/005
A051/A126

The effect of the composition of...

hardening, one has to consider the role played by the topochemical processes on the glass-acid interface. At present, no direct proof is available on the structural change of the glass surface, but the rather high increase of the strength of the silicate glass when processed in a 7.4 n solution of HF acid is attributed to it. It is recommended that this subject be studied in more detail including the effect of the pH and pF of acid baths on the degree of glass hardening. There are 3 figures.

ASSOCIATION: Institut Stekla (Glass Institute)

Card 2/2

FRASOVSKAYA, I. V.

Lbr., Saratov State University, -1946-.

"Evaluation of Root System According to Root Exudation," Dok. AN, 55, No. 5, 1947

KRASOVSKAYA, I. V. I SHUTOVA, Ye. A.

30390

Vliyaniye a-naftiluksusnoy kisloty na kornyeobrazovaniye u yarovoy pshyenitsy. Trudy in-ta fiziologii rastyeniy im timiryazyeva, T. VI. Vyp. 2, 1949, S. 138-142.--Bibliogr: 17 Hazv.

SO: Letopis' No. 34

KRASOVSKAYA, IRINA VLADIMIROVNA

Agriculture & Plant & Animal Industry

What you should know about plants. Saratovskoe otl. gos. izd-vo, 1950.

Monthly List of Russian Accessions, Library of Congress, April 1952. UNCLASSIFIED

KRAVCHUKAYA, I. V. and BOBKOVA, A. D.

"The Utilization of Mycorrhiza in Planting Acorns in the Arid Environment of Saratov Oblast", Les i Stepi (Forest and Steppe), No. 2, pp. 29-30, 1950.

KRASOVSKAYA, I. V., KUMAKOV, V. A.

Wheat

Correlation of main and secondary shoots of shoots of spring wheat., Trudy Inst.,
fiziol rast. 7, no. 2, 1951.

Monthly List of Russian Accessions, Library of Congress, March 1952. UNCLASSIFIED

KRASOVSKAYA, I.V.

Root system of farm plants under irrigation. Probl.bot.no.2:
283-316 '55. (MLRA 8:11)
(Roots (Botany)) (Irrigation farming)

KRASOVSKAYA, K.I. (Leningradskaya oblast')

"Extracurricular reading on biology" and "Children must love nature" by
E.I. Turbina. Reviewed by K.I. Krasovskaia. Biol. v shcole no. 2:87
Mr-Ap '63. (MIRA 16:4)
(Biology—Juvenile literature) (Turbina, E.I.)

POPOV, V.A.; POPOV, Yu.K.; PRIYEZZHEV, G.P.; KULAYEVA, T.M.; VORONOV, N.P.;
GARANIN, V.I.; NAZAROVA, I.V.; IZOTOVA, T.Ye.; KRASOVSKAYA, L.A.

Results of studying the animal kingdom in the flood zone of the
Kuybyshev Hydroelectric Power Station. Trudy Kazan. fil. AN SSSR.
Ser. biol. nauk no.3:7-217 '54 (MLRA 10:5)

(KUYBYSHEV RESERVOIR REGION--ZOOLOGY)
(WILD LIFE, CONSERVATION OF)

KRASOVSKAYA, L.R.

48-4-13/48

SUBJECT: USSR/Luminescence

AUTHORS: Lukantseva Yu.L. and Krasovskaya L.R.

TITLE: Investigation of Electron Localization Levels in ZnS-Cu-Phosphor (Issledovaniye urovney lokalizatsii elektronov v fosfore ZnS-Cu)

PERIODICAL: Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 1957, Vol 21 #4, pp 511-520 (USSR)

ABSTRACT: Capture levels in the ZnS-Cu-phosphor were investigated by means of optical methods.

The phosphor luminescence was excited by the filtered light of a PRK-4 mercury tube (365 mμ). The luminescent light was incident, through a filter, on a photoelectronic multiplier of the FEU-17 type connected with an amplifier.

The following conclusions were drawn from the results of investigations:

1. Determination of energies necessary for liberation of electrons from the deepest localization levels was performed by 3 independent methods:

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TITLE:

Investigation of Electron Localization Levels in ZnS-Cu-
Phosphor (Issledovaniye urovney lokalizatsii elektronov v
fosfore ZnS-Cu) ^{48-4-13/48}

- a. By analysis of thermal de-luminescence curves,
- b. By analysis of regularities in the phosphor decay
in the region of temperature quenching, and
- c. By analysis of the temperature-dependence of the
light-sum in the region near temperature quenching.

All three methods yield results agreeing well within the
limits of measurement accuracy.

2. Within the temperature range, in which the phosphor be-
haves ideally, one can apply the method of decay analysis for
the determination of the energy depth of these levels.
The report was followed by a discussion.

The bibliography lists 9 references, of which 7 are Slavic
(Russian).

INSTITUTION: Tomsk State University.
PRESENTED BY: By Vergunas P. I.
SUBMITTED: No date indicated.
AVAILABLE: At the Library of Congress.

Card 2/2

AUTHORS: Voronov, F.I. and Kravtsovskaya, L.R.

SOV/51-5-2-10/26

TITLE: Decay of Afterglow of ZnS-Cu Phosphors in $\log J$, $\log t$ and $\log J$, $\log(1 + pt)$ Coordinates (Zamiraniye posleposveteniya f.l.firov ZnS-Cu v koordinatakh $\lg J$, $\lg t$ i $\lg J$, $\lg(1 + pt)$)

PERIODICAL: Optika i Spektroskopiya, 1958, Vol 5, Nr 2, pp 162-166 (USSR)

ABSTRACT: According to Adirovich's theory (Ref 1) in an "ideal" phosphor, i.e. a phosphor in which afterglow is due to localization levels of one depth and emission centres of one type, dependence of the afterglow intensity J on time t is approximated by a straight line (which represents a hyperbola) only in coordinates $\log J$, $\log(1 + pt)$, where p is the probability of thermal liberation of localized electrons. In $\log J$, $\log t$ coordinates this dependence should be curvilinear. Experimental dependences of J on t may be rectilinear in $\log J$, $\log t$ coordinates, in apparent contradiction with Adirovich's theory. Antonov-Romanovskiy (Ref 2) deduced from this that the decay law of Adirovich is not supported by experiment. This conclusion seems to be premature. Adirovich's theoretical decay law was obtained for an ideal phosphor and it must be compared with experiment only under such conditions when a real phosphor behaves ideally. The aim of the present investigation was to compare Adirovich's theory with

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SOV/51-5-2-10/26

Decay of Afterglow of ZnS-Cu Phosphor in $\log J$, $\log t$ and $\log J$, $\log (1 + pt)$
Coordinates

experiment using ZnS-Cu phosphor with 10^{-4} g/g of Cu under conditions when it behaves as an ideal phosphor. Analysis of thermoluminescence curves suggests that at temperatures above 169°K the phosphor used behaves ideally. To obtain the decay curves the phosphor was excited until the steady state was reached, then excitation ceased and measurements were started one second after that. The results obtained are given in Fig 1a in $\log J$, $\log t$ coordinates. It is found that at temperatures higher than 274°K curvilinear dependences were obtained but at lower temperatures (170 and 235°K) the curves were rectilinear. These rectilinear dependences obtained at 170 and 235°K contradict an earlier result that the ZnS-Cu phosphor behaves ideally above 169°K. This circumstance is explained by the presence of shallow levels in addition to the 0.23 eV level, at these temperatures. When these shallow levels were pre-empted by a special procedure it was found that the curves in the 192-235°K region were also curvilinear (see Fig 1b). Both series of curves shown in Fig 1 were reconstructed in $\log J$, $\log (1 + pt)$ coordinates and are given in Fig 2. Comparison of

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Decay of Afterglow of ZnS-Cu Phosphors in $\log J$, $\log t$ and $\log J$, $\log (1 + pt)$
Coordinates

Figs 1 and 2 shows that the curvilinear dependences in $\log J$, $\log t$ coordinates become rectilinear in $\log J$, $\log (1 + pt)$ coordinates. The straight lines in $\log J$, $\log t$ coordinates, which represent hyperbolae become curvilinear in $\log J$, $\log (1 + pt)$ coordinates. This confirms Adirovich's theory for ideal phosphors. Similar results were obtained for a ZnS-Cu phosphor prepared in the absence of oxygen. There are 2 figures, 1 table and 4 Soviet references.

ASSOCIATION: Gor'kovskiy gosudarstvennyy universitet (Gor'kiy State University)

SUBMITTED: October 4, 1957

1. Phosphors--Luminescence 2. Luminescence--Decay 3. Phosphors--Excitation
Card 3/3

KRASOVSKAYA, M., insh.; FAVORSKAYA, I., insh.

Removing scale from gas inlet pipes. Avt.transp. 38 no.1:30
Ja '60. (MIRA 13:5)

(Automobiles--Engines--Maintenance and repair)

L 1772-65 EWG(j)/EWT(1)/EWP(e)/EWT(m)/EPF(c)/EWP(1)/EPF(n)-2/ENG(m)/EPA(n)-2/
T/EWP(b)/EPR Pz-6/Pe-4/Pab-10/Pr-4/Pe-4/Pi-4 IJP(c) RWH/KW/AT/WH

ACCESSION NR: AP5005759

8/0170/65/008/001/0027/0030
63
B

AUTHOR: Alferov, V. I.; Krasovakaya, N. I.

TITLE: Experimental investigation of the occurrence of vapor jets in large-current arcs

SOURCE: Inzhenerno-fizicheskiy zhurnal, v. 8, no. 1, 1965, 27-30

TOPIC TAGS: arc discharge, arc discharge plasma, vapor jet, velocity distribution, pressure distribution
21

ABSTRACT: The experiments were performed in a set-up consisting of an arc struck between two graphite electrodes and fed from a dynamo with maximum terminal voltage 400 V. The current ranged from 500 to 1000 amperes. A ballast resistor was used to stabilize the current. Oscillographs were taken of the current in the discharge. The cathode was a graphite cylinder 35 mm with conical tip, and the anode configuration was either cylindrical (50 mm diameter) or in the form of a diaphragm with cylindrical opening (10 mm), depending on the experiments. The structure of the channel was photographed with a motion-picture camera at 100 frames/second through various filters. The results have shown that jets of electrode material in the arc

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ACCESSION NR: AP5005759

induce the flow of surrounding cold air. The momentum carried by the plasma jet was measured with a nozzle-type anode. Plots were constructed of the dependence of the pressure drop on the arc combustion time, and of the distribution of the pressure over the length of the nozzle for different current strengths and for different differences between electrodes. The results showed that the pressure distribution was the same under all operating conditions. An explanation is proposed for the observed turbulence of the arc. It was also shown that the dimensionless jet velocity, plotted as a function of the distance to the cathode, is the same for all currents. This leads to the conclusion that the velocity profiles in the arc are all similar, and any discrepancy in the dimensionless velocity profile at large distances is due to the spreading of the jet. This agrees with theoretical calculations. It is also deduced that the velocity profiles transverse to the jet are also similar. Discrepancies between the velocity curves at large distances can also be attributed to different proportions of cold air in arcs at different current strengths. Orig. art. has: 4 figures.

ASSOCIATION: None

SUBMITTED: 13Apr64

ENCL: 00

SUB CODE: EE, ME

NR REF SOV: 001

OTHER: 001

Card 2/2 *am*

Krasovskaya, N. N.

Chem The compounds of beryllium oxyacetate with pyridine and diurene. A. V. Novoselova, Yu. P. Silanov, K. N. Semenchenko, and N. N. Krasovskaya. *Zh. Neorg. Khim.* 1, 100-102 (1956). The following compounds of beryllium oxyacetate were prepd. and studied in detail: $\text{Be}_2\text{O}(\text{AcO})_4$, $\text{Be}_2\text{O}(\text{AcO})_3$, and $\text{Be}_2\text{O}(\text{AcO})_2$. The crystal structures were detd. by x-ray diffraction. The compds. are insol. in org. solvents and decomp. in H_2O and aq. solns. of acids or bases. The decompn. polytherm of $\text{Be}_2\text{O}(\text{AcO})_4$ shows it to be a complex of pyridine in the crystal lattice of an unstable compd. $\text{Be}_2\text{O}(\text{AcO})_4 \cdot 2\text{C}_5\text{H}_5\text{N}$. I. Royter, Leach.

Am

KRASOVSKAYA, N.N.

USSR / Inorganic Chemistry. . Complex Compounds

C

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, No 7797

Author : Novosolova, A.V., Sorenenko, K.N., Krasovskaya, N.N. and Simanov, Yu.P.

Inst : Moscow University

Title : Beryllium Oxyacetate. Communication 2. Concerning Some Properties of Beryllium Oxyacetate-Pyridine Compounds

Orig Pub : Vestn. Mosk. Un-ta, 1956, No 3, 87-93

Abstract : Barium oxyformate, $\text{Ba}_4(\text{HCCO})_6$ (I), has been synthesized and investigated and the formation and the properties of compounds of I, beryllium oxyacetate ($\text{Be}_4\text{O}(\text{CH}_2\text{CCO})_6$ (II), and beryllium oxypropionate ($\text{Be}_4\text{O}(\text{CH}_2\text{CHCCO})_6$ (III) with pyridine (IV) and dioxane (V) have been studied. I was prepared by treating Be hydroxide or bicarbonate with formic acid, followed by the decomposition of the normal Be formate which is obtained in vacuo at 250° . At 250° , the yield of pure I

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USSR / Inorganic Chemistry. Complex Compounds

C

Abs Jour : Ref Zhur - Khimiya, No 3, 1957, No 7797

: is 92%; when the temperature is raised to 350° , the yield of I drops to 70 - 75% and the product is contaminated by pyrolysis. The thermal analysis of I has not shown any transitions accompanied by thermal effects. X-ray analysis has shown I to be isomorphic with the high-temperature modification II; the lattice parameters of II are: a 11.61 plus/minus 0.03, b 7.79 plus/minus 0.03, c 14.19 plus/minus 0.03 A.U., β 1.645, α 4.01. The solubility of I in IV does not exceed 0.5 - 0.6% and no compound formation is observed between I and IV. The compound formed by II with IV in the ratio 1/3 (VI) slowly loses IV even at room temperature; at $108-110^\circ$, the loss of IV attains its maximum rate. The first and second molecules of IV separate very rapidly; the third molecule of IV takes three to four times longer to separate. When the evolution of IV is completed, a partial decomposition of II takes place. The x-ray analysis of VI and of its thermal decomposition products shows that VI can be considered as

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Abs Jour : ref Zhur = Khimiya, No 3, 1957, No 7797

: a solid solution of IV in II; because of steric hindrance effects, beta-picoline does not form a compound with II. When I, II, and III are dissolved in V, a precipitate of the overall formula $\text{Be}_4\text{O}(\text{RCOO})_6 \cdot \text{C}_4\text{H}_8\text{O}_2$ is formed. The dioxanates of the Be oxy-salts are light, finely crystalline white powders, insoluble in organic solvents and soluble in water; in the latter case, decomposition is observed. Prolonged agitation in CHCl_3 , acetone, C_6H_6 , and other leads to a destruction of the dioxanates and the formation of oxy-salts. The solubility of the dioxanates of I, II, and III in V increases with increasing molecular weight. The compound formed by II with V (1/1) is stable at $20 - 85^\circ$ in the presence of the liquid phase. When exposed to the atmosphere, the dioxanates of I, II, and III gradually lose V; on heating, the loss of V molecules is accompanied by the splitting off of part of the acid residues; at 300° distillation begins and BeO remains.

Card : 3/4

КРАСОВСКАЯ РЫ/Е, М.М.
CHEENYAYEV, I.I.; KRASOVSKAYA, N.N.

Part 1: Geometrical isomerism of tetravalent platinum diammino-
dinitrato dichlorides. Zhur. neorg. khim. 2 10:2349-2359 0 '57.
(Platinum chlorides) (Isomers) (MIRA 11:3)

KRASOVSKAYA, M.M., Cond Chem Sci --(also) "Study of the trans effect
of ^ahydroxy_A⁻ and nitro_A⁻ group in complex compounds of univalent platinum."
Mos, 1953, 26 pp (Acad Sci USSR. Inst of General and Inorganic Chem
im N.S.Kurnakov), 150 copies (Kl, 46-52, 134)

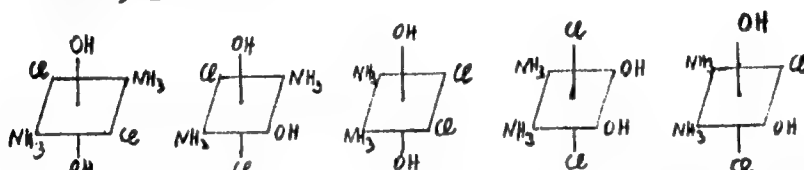
-10-

AUTHORS: Chernyayev, I. I., Krasovskaya, N. N. SOV/78-3-9-6/38

TITLE: On the Isomerism of the Dihydroxo-Diamino-Dichloride of Tetravalent Platinum (O geometricheskoy izomerii digidroksodiamminodikhloridov chetyrehvalentnoy platiny)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 9, pp 2024-2038 (USSR)

ABSTRACT: In the present paper the trans-effect of the hydroxyl in isomeric dihydroxo-diamino-dichloride of tetravalent platinum was investigated. The co-ordination theory assumes that the following geometrical isomers are existing for the compound $\text{Pt}(\text{NH}_3)_2\text{Cl}_2(\text{OH})_2$:



By the determination of the pH-value and the molecular electric conductivity of the aqueous solution of the compounds 1 and 3

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On the Isomerism of the Dihydroxo-Diamino-Dichloride of Tetravalent Platinum

it is demonstrated that the hydroxo-group has a slight trans-effect. The investigation of the dependence of the pH-value and the molecular electric conductivity of the hydroxo-compounds on time indicates that no transition from the hydroxo-group to the aquo-group takes place in the hydration. In the interaction of dihydroxo-diamino-dichloride platinum-(IV) complexes with acids no isomerization occurs. In the interaction of $(\text{NH}_3)_2(\text{ClNO}_2)_3\text{Pt}$ with NaOH a modification in the structure of the molecules occurs. This effect was ascertained by determining the solubility of $(\text{NH}_3)_2(\text{ClOH})_2\text{Pt}$. From the interaction of the compounds 2 and 3 with NH_3 it becomes evident that the compound $(\text{NH}_3)_2(\text{ClOH})_2\text{Pt}$ was prepared from $(\text{NH}_3)_2(\text{OHNO}_2)_2\text{Pt}$. From the compound $(\text{NH}_3)_2(\text{ClNO}_2)_2\text{Pt}$ the compound $(\text{NH}_3)_2(\text{ClOH}_2)_2\text{Pt}$ is formed which belongs to the class of polynuclear compounds with oxygen bridges and water of crystallization. There are 1 figure, 17 tables, and 5 references, 5 of which are Soviet.

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On the Isomerism of the Dihydroxo-Diamino-Dichloride of Tetravalent Platinum

ASSOCIATION: I.O.N.Kh. Akademii nauk SSSR (I.O.N.Kh., AS USSR)

SUBMITTED: July 8, 1957

Card 3/3

AUTHORS: Chernyayev, I. I., Krasovskaya, N. N. SO7/78-3-10-10/35

TITLE: Some Questions on the Trans-Effect of the Hydroxy-Groups in the Complex Compounds of Quadrivalent Platinum (Nekotoryye voprosy transvliyaniya gidroksogruppy v kompleksnykh soyedineniyakh chetyrehvalentnoy platiny)

PERIODICAL: Zhurnal neorganicheskoy khimii, 1958, Vol 3, Nr 10, pp 2281-2288 (USSR)

ABSTRACT: It is shown by the determination of the pH-value and the molecular electric conductivity of aqueous solutions of the compounds $(\text{NH}_3)_2(\text{OH})_2\text{Cl}_2\text{Pt}$ and $(\text{NH}_3\text{Cl})_2(\text{OH})_2\text{Pt}$ that the hydroxy-groups have little trans-effect. It can be seen from table 1 that not one of the trans-dihydroxo compounds $(\text{NH}_3)_2(\text{OH})_4\text{Pt}$, $(\text{NH}_3\text{OH})_2(\text{OH})_2\text{Pt}$ or $(\text{NH}_3\text{Cl})_2(\text{OH})_2\text{Pt}$ react upon ammonia or sodium nitrite and do not exchange the hydroxy-group against bromine when potassium bromide acts on it. The hydroxy-groups, combined with highly trans-effective addenda, are variable. The process of neutralization of hydroxo-compounds is also connected with the trans-effect. The change of the pH-value as a function of

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SOV/78-3-10-10/35

Some Questions on the Trans-Effect of the Hydroxy-Groups in the Complex Compounds of Quadrivalent Platinum

time was analyzed in the aqueous solutions of the compounds $(\text{NH}_3)_2\text{Cl}_2(\text{OH})_2\text{Pt}$, $(\text{NH}_3)_2(\text{ClOH})_2\text{Pt}$ and $(\text{NH}_3\text{Cl})_2(\text{OH})_2\text{Pt}$, and it was demonstrated that the pH-values of these compounds are similar to each other and do not depend on time. This effect shows that the hydration of these compounds is not connected with a transition of the hydroxy-group to the aquo-group. The determinations of electric conductivity also indicate that the hydroxy-group does not pass to the aquo-group in solving. There are 3 tables and 6 references, 5 of which are Soviet.

SUBMITTED: May 5, 1958

Card 2/2

5(2)

AUTHORS:

Chernyayev, I. I., Krasovskaya, N. N.

SOV/78-4-5-11/46

TITLE:

On the Geometric Isomerism of the Halides of the Quadrivalent Platinum of the Diamine Series (O geometricheskoy izomerii galogenidov chetyrehvalentnoy platiny diamminovogo ryada)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5:
pp 1002-1011 (USSR)

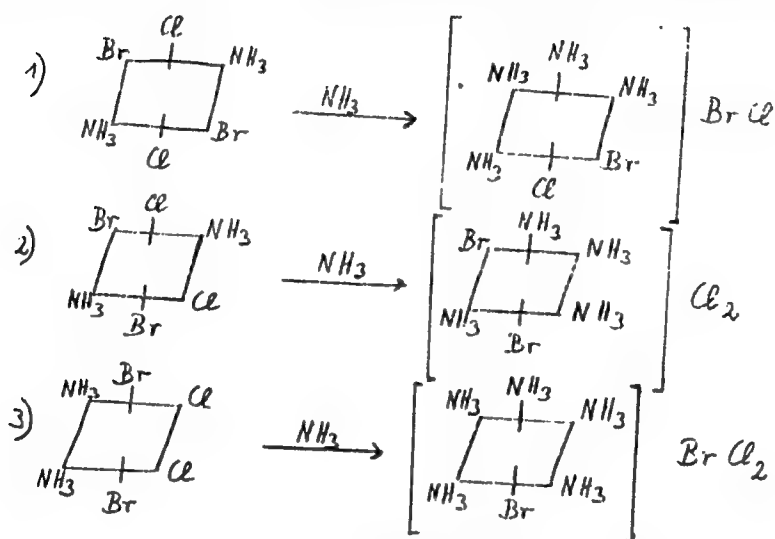
ABSTRACT:

The three geometric isomers of $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ which had already been obtained by an earlier investigation carried out by the authors (Refs 1, 2) were synthesized, their structure was confirmed, and several properties described. The chemical properties of the isomers $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ are shown by table 1. For the purpose of determining the structure of the isomers, the reaction with ammonia was used. The interaction between $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ and NH_3 develops according to the following equations:

Card 1/4

On the Geometric Isomerism of the Halides of the Quadrivalent Platinum
of the Diamine Series

SOV/78-4-5-11/46

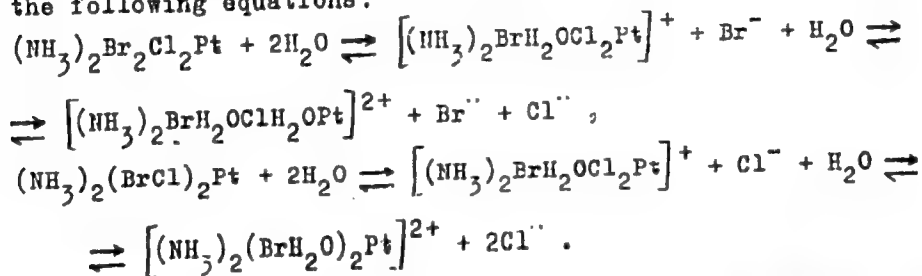


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SOV/78-4..5..11/46

On the Geometric Isomerism of the Halides of the Quadrivalent Platinum of the Diamine Series

In the interaction between $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ and NaOH_2 the following nitrito-compounds were obtained: $(\text{NH}_3)_2\text{BrNO}_2\text{ClNO}_2\text{Pt}$, $(\text{NH}_3)_2(\text{BrNO}_2)_2\text{Pt}$ and $(\text{NH}_3\text{Cl})_2\text{BrNO}_2\text{Pt}$. The chemical analyses of the separated products (Tables 1, 2) showed that the interaction between $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ and NaNO_2 develops in complete accordance with the principle that by the action of halides mainly trans-configurations are formed according to the following equations:



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On the Geometric Isomerism of the Halides of the Quadrivalent Platinum
of the Diamine Series

SOV/78-4-5-11/46

In the interaction of $(\text{NH}_3)_2\text{Br}_2\text{Cl}_2\text{Pt}$ and $(\text{NH}_3)_2(\text{Br}_2\text{Cl})_2\text{Pt}$ with AgNO_3 nitrate compounds are formed. Cis-diamine $(\text{NH}_3\text{Cl})_2\text{Br}_2\text{Pt}$ reacts with AgNO_3 with a formation of $(\text{NH}_3\text{Cl})_2\text{BrOHPT}$. The solubility of the isomers $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ was determined, and it was found that the symmetric trans-diamine $(\text{NH}_3)_2\text{Br}_2\text{Cl}_2\text{Pt}$ is the least soluble and that the cis-isomer $(\text{NH}_3\text{Cl})_2\text{Br}_2\text{Pt}$ is more easily soluble. The diammine dichloro-dibromides of quadrivalent platinum belong to the class of non-electrolytes. The isomer $(\text{NH}_3)_2\text{Br}_2\text{Cl}_2\text{Pt}$ becomes hydrated more quickly than $(\text{NH}_3)_2(\text{BrCl})_2\text{Pt}$. The hydration of $(\text{NH}_3\text{Cl})_2\text{Br}_2\text{Pt}$ leads to the formation of binary electrolytes. Investigations of the conductivity and the variation of the conductivity of $\text{Pt}(\text{NH}_3)_2\text{Br}_2\text{Cl}_2$ and the solubility of this product are given by tables 2, 3, and 4. There are 5 tables and 5 references, 4 of which are Soviet.

SUBMITTED:
Card 4/4

February 8, 1958

5(2)

SOV/78-4-5-12/46

AUTHORS:

Chernyayev, I. I., Krasovskaya, N. N.

TITLE:

On the Cis-triammines of Quadrivalent Platinum (O tsis-triammine chetyrehvalentnoy platiny)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 5, pp 1012-1017 (USSR)

ABSTRACT:

The hitherto unknown nitrate and chloride of the cis-isomer of triamino-trichloro-platinum $(\text{NH}_3\text{Cl})_3\text{PtCl}$ and $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ were prepared, their structure confirmed, and some of their properties investigated. The reaction of the interaction of $(\text{NH}_3\text{Cl})_2\text{Cl}_2\text{Pt}$ with a mixture of $\text{CH}_3\text{COONH}_4$ and NH_4OH was investigated and the compound $(\text{NH}_3\text{Cl})_2\text{PtCl}$ was isolated. In the interaction $(\text{NH}_3\text{Cl})_2(\text{OH})_2\text{Pt}$ with a mixture of $(\text{NH}_4)_2\text{CO}_3$ and NH_4OH the compound $(\text{NH}_3\text{Cl})_2(\text{NH}_3\text{OH})\text{PtCl}$ is formed. For the purpose of confirming the cis-structure of $(\text{NH}_3\text{Cl})_3\text{PtCl}$ and $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ the reduction of these compounds with oxalic acid and zinc was carried out in a hydrochloric acid medium. Oxalic acid exercises no reducing effect upon this compound. The analyses of the reduction products of $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ and

Card 1/2

On the Cis-triammines of Quadrivalent Platinum SGV/78-4-5-12/46

$(\text{NH}_3\text{Cl})\text{PtCl}$ with oxalic acid and zinc are given by table 2. Under the action of AgNO_3 , $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ is converted into nitrate, and $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ goes over into the corresponding chloride in the course of re-crystallization. The solution $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$ forms no precipitation with AgNO_3 . Only after having stored for many hours does a weak opalescence occur in the solution. Experiments show that the configuration $(\text{NH}_3\text{Cl})_3\text{Pt}^+$ is very stable. By determination of molecular electric conductivity it is shown that the cis-isomers of the triammines are binary electrolytes. The interaction of $(\text{NH}_3\text{Cl})_3\text{PtCl}$ with AgNO_3 is shown by figure 3. The solubility of $(\text{NH}_3\text{Cl})_3\text{PtCl}$, $(\text{NH}_3\text{Cl})_3\text{PtNO}_3$, $(\text{NH}_3)_2 \cdot (\text{NH}_3\text{Cl})_2\text{PtCl}_2$ and $(\text{NH}_3\text{Cl})_2\text{Cl}_2\text{Pt}$ was determined; and results are shown by table 4. Table 1 shows the chemical reactions of the compounds formed with various agents. There are 4 tables and 6 references, 5 of which are Soviet.

SUBMITTED: February 8, 1958

Card 2/2

5.26.20

68106
SOV/78-5-1-8/45

5-2
AUTHORS:

Chernyayev, I. I., Krasovskaya, N. N.

TITLE:

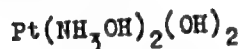
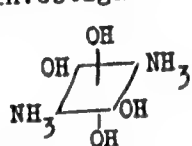
On the Geometrical Isomerism of Diamminotetrahydroxoplatinum.IV

PERIODICAL:

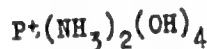
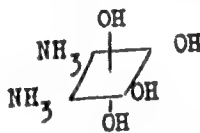
Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 1, pp 39 - 47
(USSR)

ABSTRACT:

In this paper the authors continue their investigation of the transeffect of the hydroxyl group in complex compounds of Pt(IV). They investigated the two theoretically possible isomers



and



, the analysis data

of which are shown in tables 1,2. The reaction of the two isomers on heating with concentrated ammonia or $NaNO_2$ was investigated to prove the fact found earlier that the OH groups are passive on the axes OH-Pt-OH and NH_3 -Pt-OH. No compounds with

Card 1/3

On the Geometrical Isomerism of Diamminotetrahydroxo-
platinum.IV

68106
SOV/78-5-1-8/45

more than 2 ammino groups and no nitro compounds, respectively, were obtained even after a long treatment. In acid media, however, the OH groups easily pass over into aquo groups which are considerably mobile and are easily replaced by Cl, Br, or NO₃ (Tables 6-8), the sequence of substitution depending on the position of the group. The compounds Pt(NH₃OH)₂(NH₃Cl)Cl₂ and Pt(NH₃OH)₂Cl₂ were obtained by treatment with HCl (Table 9). 4
The structure of these compounds was determined by reaction with HBr (Table 10). Since no dibromides but only the tribromide Pt(NH₃)₂Br₃Cl and the tetrabromide Pt(NH₃)₂Br₄ were formed, the hydroxyl group is supposed to have a somewhat greater transeffect than the NH₃ group. Table 11 shows the solubility of the isomers Pt(NH₃OH)₂(OH)₂ and Pt(NH₃)₂(OH)₄. Tables 12, 13 show the dependence of the electrical conductivity of these two compounds

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On the Geometrical Isomerism of Diamminotetrahydroxo-
platinum.IV

68106

SOV/78-5-1-8/45

on the age and the dilution of the solutions. These measure-
ments were made by V. A. Tsingister. Both compounds are non-
electrolytes. The authors mention I. A. Chugayev. There are
13 tables and 4 references, 3 of which are Soviet. 4

SUBMITTED: October 26, 1958

Card 3/3

68220

5(2)

AUTHORS:

Chernyayev, I. I., Krasovskaya, N. N.

S/078/60/005/02/006/045
B004/B016

TITLE:

Geometric Isomers of Diamminohydroxotrichloroplatinum (IV)

PERIODICAL:

Zhurnal neorganicheskoy khimii, 1960, Vol 5, Nr 2, pp 271-279
(USSR)

ABSTRACT:

The paper reports on the preparation of three isomeric compounds $(\text{NH}_3)_2\text{Cl}_2\text{ClOHPt}$, $(\text{NH}_3\text{Cl})_2\text{ClOHPt}$, and $(\text{NH}_3\text{Cl})\text{NH}_3\text{OHCl}_2\text{Pt}$ which contain the coordinate Cl-Pt-OH, from the corresponding dihydroxo compounds by dropwise addition of the calculated quantity of HCl. The maximum yield was 30%. The data of the analyses are summarized in table 1. The structure of the isomers was determined by reduction with oxalic acid (Table 2) and by bromination with excess HBr (Table 3). The reaction with NH_3 , NaNO_2 , and AgNO_3 (Tables 4-6) indicated that the hydroxyl groups being in trans-position to a ligand with considerable trans-effect are readily substituted. In acid medium, the hydroxyl groups are easily transformed into aquo ions, with the aquo group being substituted by the acid anion. This reaction was investigated with HCl (Table 9) and HNO_3 (Table 10). The

Cont 1/2

68220

Geometric Isomers of Diamminohydroxotrichloro
platinum (IV)

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structure of the compounds with HNO_3 was confirmed by reaction with NH_3 (Table 11). Table 12 gives the electrical conductivity and pH of the solutions of the monohydroxo-, dihydroxo-, trihydroxo-, and tetrahydroxo compounds. All isomers of the compounds $\text{Pt}(\text{NH}_3)_2\text{Cl}_2\text{OH}$, $\text{Pt}(\text{NH}_3)_2\text{Cl}_2(\text{OH})_2$, $\text{Pt}(\text{NH}_3)_2(\text{OH})_3\text{Cl}$, and $\text{Pt}(\text{NH}_3)_2(\text{OH})_4$ are non-electrolytes. The authors quote a paper by A. A. Grinberg and Yu. P. Mikhel's (Ref 2). There are 12 tables and 2 Soviet references.

SUBMITTED: October 29, 1956

Card 2/2

1. Kuznetsov, V. I. and K. Lyudskova, G. I. "The role of the family in the formation of the child's personality", *Journal of Psychology*, 1961, No. 1, p. 1-10.

Re: U-161, 10 April 57, (Letter to "General" Dwight D. Eisenhower, 10 April 57).

1. KRASOVKSAYA, O. N.: NIKITIN, V. M.

2. USSR (600)

4. Lignin

7. Acidification of lignin by oxygen. Bumprom. 27 no. 11 1952

9. Monthly List of Russian Accessions, Library of Congress, February 1953.
Unclassified.

KRASOVSKAYA, O. N.

3

Alkali lignin as a wood dye. O. N. Krasovskaya and V. M. Nikitin. *Derevoobrabatovaniye* 1984, 1, 1. *Edeokhina*. From J. No. 6, 7 (1984).—Wood, such as pine or birch, used in furniture manuf. is dyed with a 5-20% soln. of alkali lignin (I), which is prepd. by acidifying kraft liquor with H_2SO_4 , heating to 60°, filtering, washing, adding 130-150 g. NaOH per 1000 g. pptd. I; and drying at 100-105°. J. L. K.

KRASOVSKAYA, O. N.

USSR.

Laboratory method for the determination of the cellulose content of wood. O. N. Krasovskaya and V. M. Nikulin. *Dokl. Akad. Nauk SSSR*, No. 1, 14-16 (1935).—Wood shavings are covered with a 3-4% soln. of HNO_3 contg. a few drops concd. NaNO_2 , the mixt. is boiled 1 hr., filtered, washed with hot H_2O , covered with 3% NaOH soln., boiled 1-1.5 hrs., filtered, washed with hot H_2O , and dried. For pine, spruce, larch, alder, and aspen the percentage cellulose by this method was 49.5, 50.5, 42.3, 38.5, and 44.2; the percentage α -cellulose in the extd. cellulose was 80.0, 85.0, 87.0, 94.7, and 93.0, and the percentage lignin 1.2, 1.0, 0.8, 0.7, and 0.9, resp. In the detn. of the cellulose content of oak, 0.2-0.8% NaNO_2 is used in the acid digestion.

John Lake Keays

KERDOVSKAYA, O. V.

USSR

Changes in leucocytic oxidase and peroxidase of guinea pigs during sensitization and in anaphylactic shock. O. V.

Kerovskaya (Sci. Research Inst. Ear, Nose, and Throat, Ministry of Health, U.S.S.R., Moscow). *Iyull. Eksp. Biol. i Med.* 38, No. 12, 31-3 (1954).--In the processes of sensitization and especially in anaphylactic shock the respiratory function of leucocytes is lowered, as evidenced by the reduction in the no. of oxidase granules. This is accompanied by a lowered phagocytic function. Such functional lowering in anaphylactic shock and during 30 days following nasal sensitization appears to be the result of changes in the metabolic enzyme activity of the leucocytes, which in turn is the result of disturbances in the allergic neurotropic app.

B. S. Levine.

YUN'YEV, G.S.; PRILEPKO, M.Ye.; Prinimali uchastnye: KRASOVSKAYA, S.I.,
studentka; RACHKOVSKAYA, I.V., studentka; KROVCHENKO, N.F., studentka;
RESNETNIKOVA, I.L., starshiy laborant

Age-related dynamics of cardiac activity in laboratory mammals according
to electrocardiographic data. Report No.1: Atrioventricular conduction
interval and the heart rhythm. Vop. fiziol. chel. i zhiv. no.1:31-
46 '60. (MIRA 14:10)

1. Kafedra fiziologii cheloveka i zhivotnykh Belorusskogo gosudar-
stvennogo universiteta imeni Lenina.
(ELECTROCARDIOGRAPHY) (ANIMALS, INFANCY OF)

GRISHCHENKO, M.N., red.; KRASOVSKAYA, S.A., red.; ADERIKHEN, P.G., red.; BARABASH-NIKIFOROV, I.I., red.; VINOGRADOV, N.P., red.; IVANOV, V.A., red.; SKUF'IN, K.V., red.; SHEMYAKIN, I.Ya., red.; VOROTNIKOVA, R.V., red.; BERNGARDT, N.Ye., tekhn. red.

[Our region; articles and sketches on the nature of the native region] Nash krai; sbornik statei i ocherkov o prirode rodnogo kraia. Voronezh, Voronezhskoe knizhnoe izdvo, 1962. 48 p. (MIRA 16:4)

1. Vserossiyskoye obshchestvo sodeystviya okhrane prirody. Voronezhskoye otdeleniye.
(Voronezh Province--Natural resources)

KRASOVSKAYA, S. A.

35991 Izucheniye zhiznennogo tsikla tsvetkovykh. Rasteniya v pitomnike I v prirode v bashkirskom zapovednike. Nauch.-metod. Zapiski (Sovet ministrov RSFSR, Glav. Upr po zapovednikam,) Vyp. 12, 1949, S. 88-94

SO: Letopis' Zhurnal'nykh Statey, Vol. 45, Moskva, 1949

KTASU VOMITA, S.I.

Water Lilies

Wintering plants of the water lily family. Priroda 41, no. 6, 1952.

9. Monthly List of Russian Accessions, Library of Congress, 1962 ~~1958~~, Unclassified.

KRASOVSKAYA, S.A.

Plant food of Russian desmans. Zool.zhur. 32 no.3:534-538 My-Je '53.
(MLRA 6:6)

1. Khoperskiy gosudarstvennyy zapovednik.
(Desman)

KRASOVSKAYA, S.A.

Gauliflory in the podded erysimum. Priroda 42 no.12:115-116 D '53.

(MLBA 6:11)

1. Khoperskiy zapovednik (Voronezhskaya oblast').

(Lilacs)

USSR/Biology - Botany

Card 1/1 : Pub. 86 - 26/35

Authors : Krasovskaya, S. A., and Sukachev, V. N., Academician

Title : The rootless wolffia found growing in places where it was not known to exist before

Periodical : Priroda 44/2, page 116, Feb 1955

Abstract : The Wolffia arrhiza (L.) Wimmer, a small rootless flowering growth most generally found in Central and Western Europe and India has now been located in the Kursk district and in the Khopr river. Three USSR references (1935 - 1952). Drawing.

Institution :

Submitted :

KRASOVSKAYA, S.A.

Vegetation in the bodies of water of the floodplain of the
Khopr River. Trudy Khop.gos.zap. no.3:142-216 '59.

(MIRA 16:1)

(Khopr Valley—Freshwater flora)

KRASOVSKAYA, S.A.

Dynamics of the filling of the floodplain bodies of water of
the Khoper River with higher aquatic vegetation. Trudy Khop.
gos.zap. no.3:217-267 '59. (MIRA 16:1)
(Khoper Valley--Freshwater flora)

KRASOVSKAYA, S. V.

5102. CATALYTIC REFINING OF LUBRICATING OILS. Kulic, A.M.,
Krasovskaya, S.V. and Krasovskaya, S.V. (Inst. Azerbaidzh. Univ., Baku, Azerb.
(Proc. Azerbaidzh. Univ., Azerb. Univ.), 1954, (3), 73-77; abstr. in Ref. Zh.
Khim. (Ref. J. Chem., Moscow), 1956, (17), 55543). Catalytic refining of
avtol 10 (automobile lubricating oil) and MK aviation oil in the presence of
natural activated clay and synthetic aluminum silicate catalyst, with
subsequent steam distillation at 200°C in the presence of natural clay, showed
that the quality of avtol 10 improved with increase of temperature (within
determined limits). A decrease in specific gravity and viscosity-gravity
constant and increase in the viscosity index was obtained. The maximum
refining temperature of the avtol 10 depending on the character of the catalyst
is from 375-400°. At very high temperatures the decomposition of hydrocarbons
takes place and for MK aviation oil this occurs even at 375-400°.

gmb
MT

KRASOVSKAYA, T. A.

M. A.

• The catalytic regrouping of poly(ethyl siloxane) liquids in the presence of aluminum silicate. E. A. Andriyev and T. A. Krasovskaya. *Khim. Prom.*, 1955, 462-5. - The regrouping of the liquid diethylsiloxane polymers was catalyzed with Crimean clay activated with 10% HCl at the h.p. The viscosity of hexaethyl cyclotrisiloxane increases rapidly from 3.7 to 1880 centipoises in 1 min., and the mol. wt. increases from 306 to 1282. Further heating for 6 hrs. reduces the viscosity to 67.1. Heating octaethyl cyclo-tetra-siloxane causes the viscosity to rise slowly from 10.8 in 8 hrs. to a value close to the original value. The viscosity of non-volatile cyclic polymers with an av. mol. wt. of 1476 drops from 512 to 86.8. A reaction mechanism is suggested as a chain reaction similar to the polymerization mechanism of, e.g., styrene. (cf. Szwarc, *Some Problems in Chemical Kinetics and Reactivity*, 1954 (C. 1. 49, 150-50).

W. H. G. G. G.

~~KRASOVSKAYA, T.A.~~
KASOVSKAYA, T.A.

7700* (Russian) Catalytic Rearrangement of Polysilox-
anic Liquids in the Presence of Aluminosilicates. 70 kataliti-
cheskoi peregrupirovke politsiloksanovykh zhidkostei
v prisutstvi aluminosilikata. K. A. Andrianov and T. A.
Krasovskaya. Khimicheskaya Promyshlennost', no. 8, Dec 1956,
p. 14-17.

In compounds with molecules having an internal tension a chain
reaction takes place; in the rearrangement of compounds not
having such tension, the reaction is progressive by addition and
formation of an intermediate complex.

4
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2 may

79-2-47/58

AUTHORS: Andrianov, K. A.; Zubkov, I. A.; Krasovskaya, T. A.; Kleynovskaya, M. A.

TITLE: Derivation of Polyethylsiloxanes of Linear Structure (Polucheniye polietilsiloksanov lineynoy struktury)

PERIODICAL: Zhurnal Obshchey Khimii, 1957, vol 27, No 2, pp. 491-494 (U.S.S.R.)

ABSTRACT: Report describes the method employed in the synthesis and separation of ethylsiloxane polymers of linear structure with 3 to 5 Si atoms in the molecule. The catalytic regrouping method in the presence of aluminum silicate was used in the derivation of ethylpolysiloxanes of linear structure. Hexaethylcyclotrisiloxane, octaethylcyclotetrasiloxane and hexaethyldisiloxane, were used as the basic substances for the synthesis. The separation of the individual polymers from the hydrolysis products was accomplished by fractionation in a rectification tower with an effectiveness of 20 theoretical plates. During the fractionation of hexaethyldisiloxane, the rate of flow of the liquid was 200-250 ml/hr and the reflux number was 10-15. Rectification of the cyclic polymers was conducted at the same rate of flow of the liquid but the reflux numbers were

Card 1/2

Derivation of Polyethylsiloxanes of Linear Structure 79-2-47/53

25-30. The properties of the products obtained are listed in the tables.

2 tables. There are 6 references, of which 1 is Slavic

ASSOCIATION:

PRESENTED BY:

SUBMITTED: February 17, 1956

AVAILABLE: Library of Congress

Card 2/2

KRASOVSKAYA T.A.

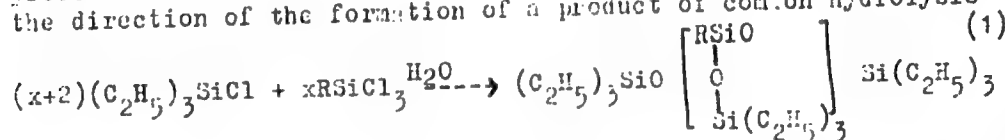
71-2-11/64

AUTHORS: Andrianov, K. A., Levshuk, M.Ya., Golubtsov, S.A., and
Krasovskaya, T.A.

TITLE: On the Common Hydrolysis of Mono- and Trifunctional Alkyl(Arilyl)
Chlorine Silanes (O sovmenstnom gidrolize mono- i trifunktsional'
nykh alkil(aril)khlorosilanov)

PERIODICAL: Zhurnal Obshchey Khimii, 1958, Vol. 28, Nr 2, pp. 333 - 336 (USSR)

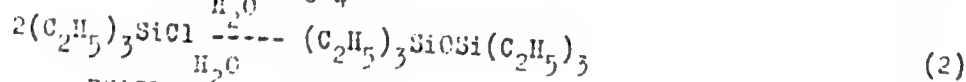
ABSTRACT: The synthesis of most polymeric organosilicon compounds of the type
of polyorganosiloxanes takes place by means of a common hydrolysis
of two, sometimes more, monomeric organosilicon compounds - alkyl -
or alkylchlorosilanes or substituted ethers of orthosilicic acid.
It is usually assumed that in a hydrolysis of mixtures of two al-
kylchlorosiloxanes a polymeric product of the common hydrolysis of
these compounds forms. The authors found that the reaction often
proceeds in the direction of a mixture of two polymers and not in
the direction of the formation of a product of common hydrolysis



Card 1/2

On the Common Hydrolysis of Mono- and Trifunctional Alkyl(Aryl) Chlorine Silanes 79-2-11/64

where R = C₆H₅ or C₆H₄Cl.



As the test showed, neither the change of the molar interactions and the acid content of the medium nor the use of one or the other solvent in the hydrolysis were capable of suppressing reactions (2) and (3) and leading the process toward the formation of a common product of hydrolysis according to reaction (1). It was assumed that the temperature coefficients of the reaction velocity are different. A test confirmed this assumption and showed that the performance of the hydrolysis at higher temperatures promotes the production of products of the common hydrolysis, but not the mechanical mixture of two polymers. There are 2 figures, 2 tables, and no references.

SUBMITTED: January 19, 1957
 AVAILABLE: Library of Congress
 Card 2/2

5.3700

S/191/61/000/002/007/012
B124/B204

$$\begin{array}{c}
 \text{CH}_3 \\
 | \\
 (\text{CH}_3)_3\text{Si}-\text{O}-\text{Si}-\text{CH}_2-\text{Si}-\text{O} \\
 | \quad | \quad | \\
 \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \\
 \text{I}
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 \text{CH}_3 \\
 | \\
 (\text{CH}_3)_3\text{Si}-\text{O}-\text{Si}-\text{O}-\text{Si}-\text{O}-\text{Si}-\text{O} \\
 | \quad | \quad | \quad | \\
 \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \\
 \text{II}
 \end{array}
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 \text{CH}_3 \\
 | \\
 (\text{CH}_3)_3\text{Si}-\text{O}-\text{Si}-\text{CH}_2-\text{Si}-\text{O} \\
 | \quad | \quad | \\
 \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \\
 \text{III}
 \end{array}
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 \text{CH}_3 \\
 | \\
 (\text{CH}_3)_3\text{Si}-\text{O}-\text{Si}-\text{O}-\text{Si}-\text{O} \\
 | \quad | \quad | \\
 \text{CH}_3 \quad \text{CH}_3 \quad \text{CH}_3 \\
 \text{IV}
 \end{array}$$

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S/191/61/000/002/007/012
B124/B204

Comparative properties of organo...

in air was compared. Fig. 1 shows the dependence of the viscosity of the compounds I and II upon the heating time at 250°C. Fig. 2 shows the change in viscosity of the compounds III and IV with the heating time at 200°C. Fig. 1 shows that the viscosity in the case of heating at 250°C grows more quickly with compound I than with compound II. The results obtained by the analysis of the chemical composition of the liquids investigated (Table) show that in the case of heating, the molecular weight and the silicon content in compounds with a methyl siloxane chain (I and III) increase more quickly than in compounds with the siloxane chain (II and IV) which characterizes the destruction processes in the organic part of the molecule. The organomethyl siloxanes (I and III) are also less resistant to thermooxidation. The substitution of the oxygen of the methylene group in the molecule chain of organosiloxane weakens the shielding effect of the siloxane bond in comparison to the silicon-organic frame groups, which leads to a decrease of thermooxidation stability of the frame groups. The temperature coefficient of viscosity grows in the interval of from +50 to -30°C considerably in the case of substitution of oxygen in the siloxane

Card 2/8

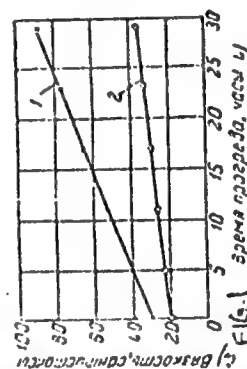
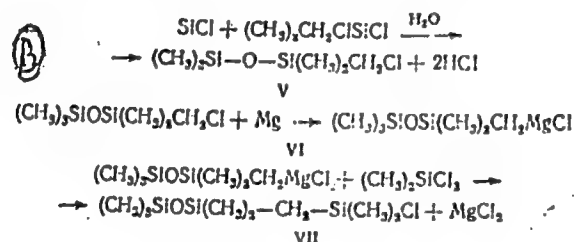
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S/191/61/000/002/007/012

3124/3204

Comparative properties of organo...

chain by the group $-\text{CH}_2-$; in compound I it equals 330 and in compound II 35 (Fig. 3). Compound III shows the same temperature dependence of viscosity. The absolute value of the viscosity coefficient in the temperature interval of from $+50$ to -50°C is, however, considerably lower, in compound III it amounts to 12.9 and in compound IV to 7.65 (Fig. 4). As initial compounds, chlorosilane, dimethylchloromethylchlorosilane, dimethyldichlorosilane and methylphenyldichlorosilane were taken. The compound with a methylenesiloxane chain is obtained by means of the reactions:



Card 3/8

69919

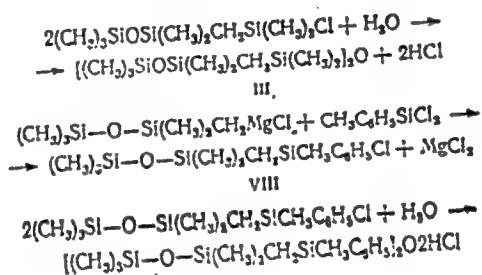
S/191/61/000/002/007/012

B124/B204

Comparative properties of organo...

Magnesium-organic compound VI is not only formed in sulfuric ether but also in toluene, however, the reaction to the compounds VII and VIII in toluene, does not develop quantitatively in toluene also if the reaction time of 8 (in ether) is extended to 13 hr in the reaction with dimethyldichlorosilane and to 30 hr in the reaction with methylphenyldichlorosilane. There are 4 figures, 1 table, and 3 non-Soviet-bloc references.

Legend to Fig. 1: Change in viscosity in heating up to 250°C; 1 - compound I; 2 - compound II; a) viscosity, centistokes; b) heating time, hr.



Card 4/8

89919

5/191/61/000/002/007/012
B124/B204

Comparative properties of organo...

Legend to Fig. 2: Change in
viscosity in the case of
heating up to 200°C; 1 - compound IV;
2 - compound III. a) viscosity,
centistokes; b) heating time, hr.

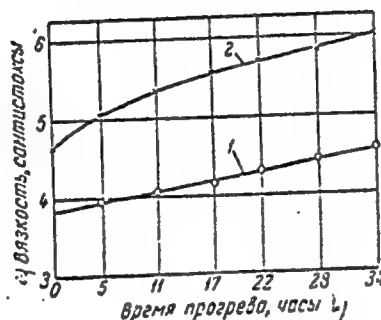


Fig. 2

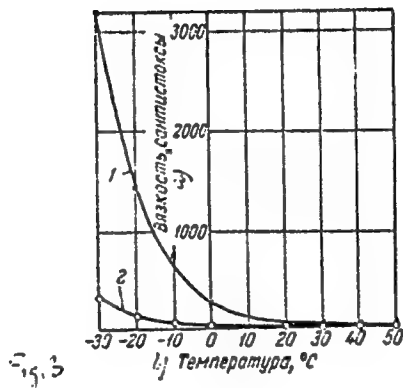
Card 5/8

89919

Comparative properties of organo...

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B124/B204

Legend to Fig. 3: Change
in viscosity in dependence
on the change in temperature;
1 - compound I; 2 - compound II;
a) viscosity, centistokes,
b) temperature, °C



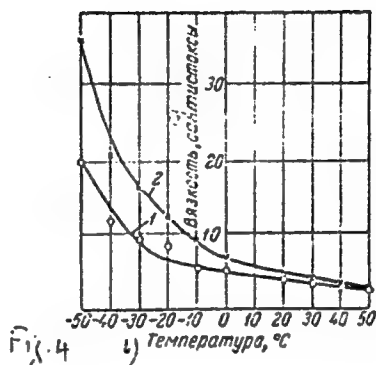
Card 6/8

89919

S/191/61/000/002/007/012
B124/B204

Comparative properties of organo...

Legend to Fig. 4: Change
in viscosity in dependence
on the change in temperature;
1 - compound IV; 2 - compound III,
a) viscosity, centistokes,
b) temperature, °C.



Card 7/8

89919

Comparative properties of organo...

S/191/61/000/002/007/012
B124/3204

Legend to the table: Change in physicochemical properties by temperature:
1) Compounds, 2) factors, 3) molecular weight, 4) silicon content; %, 5) viscosity at 20°C, cst; I and II: values in the enumerator - before heating, values in the nominator - after heating to 250°C; III and IV: after heating to 200°C.

2 Показатели	1 Соединения			
	I*	II*	III**	IV**
Молекулярный вес . . . 3.	621/988	568/752	433/454	508/526
Содержание кремния, % . 4.	27,38/28,94	27,34/27,00	35,45/36,16	35,82/36,01
Вязкость при 20°, ссм . 5.	30,0/88,8	20,3/35,6	4,66/6,03	3,88/4,54

Card 8/8

22738

158116

2209

S/191/61/000/006/003/005
B101/B215

AUTHORS: Andrianov, K. A., Krasovskaya, T. A., Ponomareva, T. I.

TITLE: Catalytic transformations of a mixture consisting of the products of cohydrolysis of methylphenyl dichlorosilane and trimethylchlorosilane

PERIODICAL: Plasticheskiye massy, no. 6, 1961, 21-24

TEXT: The cohydrolysis following the formula is said to be a suitable method for obtaining liquid polyorganosiloxanes: $2R_3SiX + nR'_2SiX_2 + (n + 1)H_2O \longrightarrow R_3SiO[SiR'_2O]_nSiR_3 + 2(n + 1)HX$ (I). Besides, however, a parallel condensation of the individual hydrolysis products takes place under the formation of cyclic compounds: $mR'_2SiX_2 + mH_2O \longrightarrow [R'_2SiO]_m + 2mHX$ (II) and of disiloxane: $2R_3SiX + H_2O \longrightarrow R_3SiOSiR_3 + 2HX$ (III). To convert cyclic compounds and disiloxane into linear compounds, the mixture of cohydrolysis is treated with various catalysts. As to polymethylsiloxanes, these reactions have already been studied. In the present paper the action

Card 1/8

Catalytic transformations of a ...

22738
S/191/61/000/006/003/005
B101/B215

of catalysts on the cohydrolysis mixture of polymethyl-phenyl siloxanes has been studied. The action of H_2SO_4 , KOH, $FeCl_3 \cdot 6H_2O$, $Al_2(SO_4)_3 \cdot 18H_2O$, and natural aluminosilicate (treated with HCl) upon the products of cohydrolysis of methyl-phenyl dichlorosilane and trimethyl chlorosilane (molar ratio of 5:2) has been examined. Cohydrolysis took place at $60^\circ C$. The product was neutralized, and the content of Si and C_6H_5 in the fraction 180-290°C was determined. Fig. 1 shows the change of viscosity under the action of catalysts; Table 1 gives the analysis of the products of catalytic transformation. The fact that viscosity at first increases rapidly when using KOH is explained by the intensive polymerization of cyclic compounds. No constant viscosity was attained for aluminosilicate, and the formation of benzene, i.e., separation of the phenyl radical from siloxane, was observed. With $FeCl_3$ and $Al_2(SO_4)_3$, the cyclic compounds were not completely rearranged at $20^\circ C$. A temperature increase to $60^\circ C$ accelerated the reaction but then separation of phenyl radicals occurred. With 90% H_2SO_4 constant viscosity was attained after 4 hr. Here, complete rearrangement occurred. According to its molecular weight, the polymer

Card 2/8

22738

S/191/61/000/006/003/005

B101/B215

Catalytic transformations of 'a ...

corresponded to nonamethyl-triphenyl pentasiloxane. With 80% H_2SO_4 , constant viscosity was only attained after 18 hr; with 40 and 60% acid, viscosity increased continuously and the content of cyclic compounds was only slightly reduced. 94.6% acid caused the formation of linear polymers, but led to the separation of phenyl radicals. Table 3 gives the results obtained with 90% H_2SO_4 at various temperatures and various amounts of catalysts. As regards their activity, the catalysts examined range in the following order: $H_2SO_4 > KOH > FeCl_3 \cdot 6H_2O > Al_2(SO_4)_3 \cdot 18H_2O > \text{aluminosilicate}$. There are 3 figures, 3 tables, and 6 references: 1 Soviet-bloc and 5 non-Soviet-bloc. The two most important references to English-language publications read as follows: D. F. Wilcock, J. Am. Chem. Soc., 69, 477 (1947); R. N. Lewis, J. Am. Chem. Soc., 70, 1115 (1948).

Card 3/8

S/191/62/000/009/005/012
B101/B144

AUTHORS: Kleynovskaya, E. A., Sobolevskiy, M. V., Krasovskaya, T. A.,
Zharkova, N. M.

TITLE: Dependence of the composition and properties of liquid
polyorganosiloxanes on their mode of production

PERIODICAL: Plasticheskiye massy, no. 9, 1962, 19 - 24

TEXT: The composition and properties of polymethyl-phenyl siloxanes got
by cohydrolysis and subsequent catalytic regrouping in the presence of
Kil clay were studied as follows: Aqueous solutions of methyl-phenyl
dichlorosilane, dimethyl dichlorosilane and trimethyl chlorosilane in the
molar ratio 3:1:2.2 were cohydrolyzed at 60-65°C. The cyclic byproducts
developed were regrouped with 8% Kil clay as catalyst at 50°C (6 hr) into
linear compounds. The reaction product was fractionated and investigated.
Predominantly linear polymers having the general formula:
 $(CH_3)_3Si[OSiCH_2C_6H_5]_n[OSi(CH_3)_2]_mOSi(CH_3)_3$ resulted. In the products
distilled within the limits of 380°C/0.1-0.5 mm Hg, n was 0,1,...6; m was
0,1,2; n + m was 0,1,...7. The content of cyclic compounds did not exceed
Card 1/2

S/191/62/000/009/005/012
B101/B144

Dependence of the composition...

4%. The product contained 1.2% hexamethyl disiloxane, 1.8% α,ω -hexamethyl-polydimethyl siloxanes, 26% α,ω -hexamethyl-polymethyl-phenyl siloxanes, 45% α,ω -hexamethyl-polydimethyl-polymethyl-phenyl siloxanes. The ~23% of nondistillable residues seem to be composed of high-boiling polymers of the latter type. For 11 compounds of the given general formula, 10 of which were synthesized for the first time, b.p. ($^{\circ}\text{C}/\text{mm Hg}$), softening point ($^{\circ}\text{C}$),

n_D^{20} , d_4^{20} and η_{20} (centistokes) are given respectively as follows: $n = 1$, $m = 0$: 78-79/0.5, -, 1.4470, 0.9118, 2.55; $n = m = 1$: 87-88/0.5, -75, 1.4393, 0.9244, 3.75; $n = 1$, $m = 2$: 105/0.5, -95, 1.4363, 0.9355, 3.85; $n = 2$, $m = 0$: 130-132/0.5, -75, 1.4775, 0.9761, 7.05; $n = 2$, $m = 1$: 147-149/0.5, -70, 1.4670, 0.9786, 7.77; $n = m = 2$: 162/1.0, -60, 1.4605, 0.9807, 8.50; $n = 3$, $m = 0$: 180/0.5, -60, 1.4950, 1.0132, 15.71; $n = 3$, $m = 1$: --*, -55, 1.4858, 1.0132, 15.90; $n = 4$, $m = 1$: --*, -60, 1.4985, 1.0331, 29.17; $n = 4$, $m = 2$: --*, -60, 1.4930, 1.0327, 27.55; $n = 5$, $m = 2$: --*, -55, 1.4987, 1.0472, 43.86. * = molecular distillation. Thus, a regular connection exists between the physicochemical properties and the content of dimethyl- and methyl-phenyl siloxane links. There are 5 figures and 4 tables.

Card 2/2

SOBOLEVSKAYA, L. V.; KRASOVSKAYA, T. A.

Polymethyl siloxane fluids. Biul.tekh.-ekon.inform.Gos.nauch.-
issl.inst.nauch. i tekhn.inform. no.10:30-32 '62.
(MIRA 15:10)

(Siloxanes)

L 10765-63

EWP(j)/EPR/EPF(c)/EWT(m)/EPF(n)-2/FCS/T-2/BDS/ES(s)-2/ES(v)--
AEDC/AFFTC/ASD/SSD--Ps-l/Pc-l/Pr-l/Pu-l/Pt-l/Pe-l--RM/MW/MAY
ACCESSION NR: AP3003305 S/0191/63/000/007/0022/0024

AUTHOR: Ponomareva, T. I.; Krasovskaya, T. A.; Sobolevskiy, M. V.

95

92

TITLE: Synthesis and study of the properties of bis(triorganosilyl)benzenes

SOURCE: Plasticheskiye massy, no. 7, 1963, 22-24

TOPIC TAGS: synthesis, bis(triorganosilyl)benzenes, bis(methyldiphenylsilyl)benzene, bis(dimethylphenylsilyl)benzene, dibromobenzene, chlorotriorganosilanes, Grignard reaction, hexaorganosiloxanes, solubility, boiling point, melting point, thermal-oxidative stability

ABSTRACT: Four bis(triorganosilyl)benzenes (I), including two new compounds — bis(methyldiphenylsilyl)benzene (m. 196-197°C) and bis(dimethylphenylsilyl)benzene (m. 59°C) — have been synthesized in yields of 16 to 49% by the Grignard reaction from dibromobenzene and chlorotrimethyl-, chlorodimethylphenyl-, chloromethyl-diphenyl-, or chlorotriphenyl silanes. The reactions proceed in one step at 140-160°C. All I are white, crystalline solids which can be precipitated from benzene solutions with absolute alcohol. The solubility of I in organic solvents drops with an increase of the number of phenyl groups: bis(triphenylsilyl)benzene

Card 1/2

L 10765-63

ACCESSION NR: AP3003305

3

is insoluble in the common organic solvents at room temperature. The properties of I were compared with those of the respective hexaorganodisiloxanes (II). It was shown that I have higher boiling and melting points than II and that they are less soluble in many solvents. The thermal-oxidative stability of II exceeds that of I at 200 and 250C but is lower at 300 and 350C. "The authors express their gratitude to T. I. Pel'ts and K. S. Frolova for their assistance in determining the thermal-oxidative stability of the compounds." Orig. art. has: 4 figures and 2 tables.

ASSOCIATION: none

SUBMITTED: 00

DATE ACQ: 30Jul63

ENCL: 00

SUB CODE: 00

NO REF SOV: 005

OTHER: 005

Card 2/2

KRASOVSKAYA, T.A., aspirant

Studying the operation of double-hinged reinforced concrete frames.
Trudy MIIT no.174:196-213 '63. (MIRA 18:1)

ACCESSION NR: AP4039944

S/0191/64/000/006/0021/0022

AUTHOR: Ponomareva, T. I.; Krasovskaya, T. A.; Sobolevskiy, M. V.

TITLE: Investigation of the properties of polymers with alternating siloxane and silphenylene units.

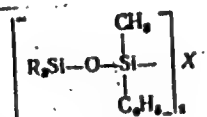
SOURCE: Plasticheskiye massy*, no. 6, 1964, 21-22

TOPIC TAGS: siloxane silphenylene polymer, property, organophenylenesiloxane, siloxanobenzene containing polymer, triorganochlorosilane methylphenyldichlorosilane condensate, triorganochlorosilane benzene condensate, hydrolytic condensation, viscosity temperature coefficient, viscosity, hardening temperature, thermal stability, thermooxidative stability, decomposition lubricating ability, coefficient of friction

ABSTRACT: Properties of polymers containing alternating siloxanobenzene units in the molecule were investigated. Polymers having the general structural formula:

Card 1/3

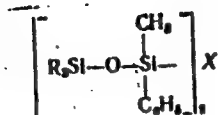
ACCESSION NR: AP4039944



where $\text{R}_3 = (\text{CH}_3)_2\text{C}_6\text{H}_5$, $\text{CH}_3(\text{C}_6\text{H}_5)_2$; $\text{X} = 0$ or C_6H_4 , were prepared by hydrolytic condensation of triorganochlorosilane with bis(methylphenylchlorosilyl)benzene or with methylphenyldichlorosilane and subsequent rearrangement. Introduction of the benzene ring into the methylphenylsiloxane molecule increased viscosity, temperature coefficient of viscosity, and hardening temperature of the polymers. Replacement of the oxygen between the silicon atoms by a benzene ring reduced thermooxidative stability but improved the thermal stability of the compounds: the organophenylenesiloxanes gelled in 30 minutes at 300C while the organosiloxanes remained liquid. The organophenylenesiloxanes decompose at 442-443C, 120-160C higher than the corresponding organosiloxanes. Introduction of the benzene ring into methylphenylsiloxanes produces no significant change in their lubricating properties. The friction coefficient at 100-300C has a range of 0.2-0.28 for the organophenylenesiloxanes but varies from 0.19 to 0.4 for the organosiloxanes. Orig. art. has:

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ACCESSION NR: AP4039944



where $\text{R}_3 = (\text{CH}_3)_2\text{C}_6\text{H}_5$, $\text{CH}_3(\text{C}_6\text{H}_5)_2$; $\text{X} = 0$ or C_6H_4 , were prepared by hydrolytic condensation of triorganochlorosilane with bis(methylphenylchlorosilyl)benzene or with methylphenyldichlorosilane and subsequent rearrangement. Introduction of the benzene ring into the methylphenylsiloxane molecule increased viscosity, temperature coefficient of viscosity, and hardening temperature of the polymers. Replacement of the oxygen between the silicon atoms by a benzene ring reduced thermooxidative stability but improved the thermal stability of the compounds: the organophenylenesiloxanes gelled in 30 minutes at 300C while the organosiloxanes remained liquid. The organophenylenesiloxanes decompose at 442-443C, 120-160C higher than the corresponding organosiloxanes. Introduction of the benzene ring into methylphenylsiloxanes produces no significant change in their lubricating properties. The friction coefficient at 100-300C has a range of 0.2-0.28 for the organophenylenesiloxanes but varies from 0.19 to 0.4 for the organosiloxanes. Orig. art. has:

Card 2/3

1. Analytical studies of the pigments of green leaf plastids by the method of chromatography. D. I. Sapozhnikov, I. A. Bronshteyn, and T. A. Krasovskaya (V. I. Komarov Bot. Inst., Acad. Sci. U.S.S.R., Leningrad). *Izvestiya* 20, 289 (1955).—A two-directional paper chromatographic procedure is described for the qual. and quant. detn. of the plastid pigments of green leaves. Carotene also is sep'd. from the primary spot with the aid of pure petr. ether. Carotene and xanthophyll are sep'd. from chlorophyll and from one another with the aid of 3:1 benzene-petr. ether. Xanthophyll can be sep'd. into luteoxanthol and violaxanthol with a 2:1 benzene-petr. ether mixt. Phycophytin, if present, will migrate in conjunction with carotene using the same solvent mixt. They can then be sep'd. with petr. ether which fixes the phycophytin to its position but moves the carotene upward. Chlorophylls a and b are sep'd. by a mixt. of 96% EtOH and petr. ether (1:14). Thus, by using benzene-petr. ether for direction 1 and EtOH-petr. ether (1:14) for direction II all the plastid pigments can be sep'd., cut apart, and used in the quant. detns. Methods for the elution of each constituent are presented. Quant. detns. of carotene can be made directly from its alc. ext. without having to resort to preliminary chlorophyll sapon. B. ~~344~~

②

KRASOVSKAYA, T. A.

Quantitative determination of main carotenoids of the green leaf by means of paper chromatography. D. I. Sapozhnikov, I. A. Bronshteyn-Popova, T. A. Krasovskaya, and A. N. Maevskaya (V. L. Komarov Bot. Inst., Leningrad). *Fiziol. Rasteni* 3, 487-9 (1958). The detn. was made by the previously described technique (C.A. 49, 18084f). Me₂CO ext. of the macerate is chromatographed on paper with development of one strip with 3:1 C₁₀H₁₆-petr. ether for sepn. of carotene, luteine, and violoxanthine; the 2nd strip is developed by 18:8:1 C₁₀H₁₆-petr. ether-98% EtOH for sepn. of neoxanthine. The eluates are then analyzed photometrically. Av. deviations are 0.5% for carotene, 0.3 for luteine, and 0.4 for violoxanthine and neoxanthine. The Me₂CO extn. is run at Dry-ice temp.
O. M. Kosolapoff

chem 4

AM

KRASOVSKAYA, T.A.

PA - 3376

AUTHOR

SAPOZHNIKOV, D.I., KRASOVSKAYA, T.A.,
KAYEVSKAYA, A.N.,

TITLE

Changes Observed in the Relation between the Main Carotinoids in the
plastids of green Leaves Exposed to Light.

PERIODICAL

(Izmeneniye sootnosheniya osnovnykh karotinoidov plastid zelenykh list'-
yev pri deystvii sveta - Russian)
Doklady Akademii Nauk SSSR, 1957, Vol 113, Nr 2, pp 465-467, (U.S.S.R.)
Received 6/1957

ABSTRACT

By several research works it was shown that the oxygen eliminated on the
occasion of photo-synthesis originates from water. So far, however, no
certain intermediate products of this reaction were proved. Although here
hypotheses on the part of the carotenoids as oxygen-transporters were ex-
pressed, a clear confirmation is still lacking. The authors applied a new
method of inactivating the enzymes as well as chromatography on paper, and
following the fluctuations of the relation of the 4 basic carotenoids, car-
otene, lutein, violoxanthin and neoxanthin in leaves of several kinds of
plants. Lamellae were cut out from leaves of cyclamens, Sakhalin-buck-
wheat, broad bean, dandelion and others and they were exposed to a 3H-8-
lamp. The different intensity light was effected by different distaces of
the source of light. Lamellae which served for an experiment and as con-
trol were fixed with acetone at -78°. The analysis of the carotenoids was
carried out according to the methodology previously described by the au-
thors. Illustration 1 shows that the content of carotene and neoxanthin
stays nearly unchanged, whereas the content of lutein increases on the oc-

Card 1/2

Changes Observed in the Relation between the Main Carotenoids in the Plastids of Green Leaves Exposed to Light.

PA 3376

casion of decreasing violoxanthin. This takes place in connection with an intense exposure to light. Illustration 2 illustrates the dependency of the fluctuation of the difference of the content expressed as percentages of lutein and violoxanthin on the intensity of light. Already at 5,000 lk this difference increases noticeably and attains its maximum at 8,000 lk. Further increase of the intensity of light has no influence on the difference. On the occasion of exposure to light of high intensity the sum of the content expressed as percentage of lutein and violoxanthin remain stable. Dimishing the intensity leads to the opposite effect. The phenomenon makes it possible to assume that in the green leaves there exists a system of enzymes which regulates the proportion of lutein and violoxanthin. It is possible that this system is related to the oxygen transport in the process of photosynthesis.

(4 illustrations. 4 citations from Slavic publications).

ASSOCIATION Botanical Institute of the Academy of Science of the U.S.S.R.
PRESENTED BY KURSANOV, A.L., Member of the Academy.
SUBMITTED 2.7.1956
AVAILABLE Library of Congress.
Card 2/2

PONOMAREVA, T.I.; KRADOVSKAYA, T.A.; SOMOLEVSKIY, M.V.

Investigating the properties of polymers with alternating siloxane
and silphenylene links. Plast.massy no.6:21-24 '64.

(MIRA 18:4)

L 45890-66 ENT(m)/ENF(j) RM

ACC NR: AP6024048

SOURCE CODE: UR/0191/66/000/005/0018/0020

AUTHOR: Ponomareva, T. I.; Krasovskaya, T. A.; Sobolevskiy, M. V.

29
B

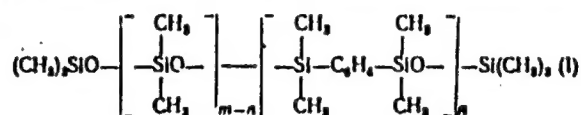
ORG: none

TITLE: Effect of the position of aromatic groups on the properties of liquid polyorganosiloxanes 7

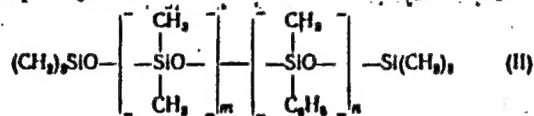
SOURCE: Plasticheskiye massy, no. 5, 1966, 18-20

TOPIC TAGS: polysiloxane, organosilicon compound, chain polymer

ABSTRACT: The properties of polymers containing aromatic groups were studied in relation to the position of these groups in the molecular chain. The polymers studied were polydimethylphenylenesiloxanes of the average composition



and polydimethylmethylphenylsiloxanes of the average composition



Cord 1/2

UDC: 678.84.01:53/54

L 45890-66

ACC NR: AP6024048

where n is equal to 3, 6, 10 and 23 mole %, and the average degree of polymerization is 30. It is shown that the physicochemical properties of the polymers (solidification temperature, viscosity, activation energy of viscous flow, d_4^{20} , n_D^{20}) change somewhat with changing position of the benzene rings in the molecular chain. The viscosity of polymers with phenyl radicals on the sides increases more slowly during thermal oxidation than does that of polymers with benzene rings in the main chain (for the same number of benzene rings). This is due to the smaller number of the most readily oxidizable methyl radicals and to the screening effect of benzene rings in the side groups. The presence of benzene rings between the silicon atoms hinders the depolymerization of siloxane chains because of the difficulty of rupture and formation of low-molecular cyclic dissociation products. Orig. art. has: 1 figure and 5 tables.

SUB CODE: 07/ SUBM DATE: none/ ORIG REF: 003/ OTH REF: 006

Card 2/2 LC

ACC NR: AP7002657

(A₁N)

SOURCE CODE: UR/0191/01/000/00170 12/0025

AUTHOR: Koreleva, T. V.; Krasovskaya, T. A.; Sobolevskiy, M. V.; Gornat, L. V.;
Ruskin, Yu. Ye.

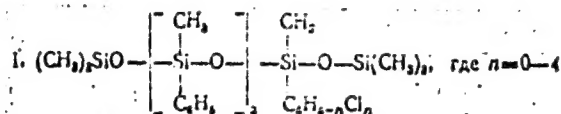
ORG: none

TITLE: Lubricating properties of polymethyl(chlorophenyl)siloxanes

SOURCE: Plasticheskiye massy, no. 1, 1967, 22-25

TOPIC TAGS: lubricant, silicone lubricant, polymethylchlorophenylsiloxane

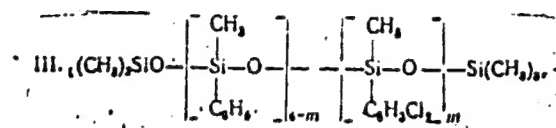
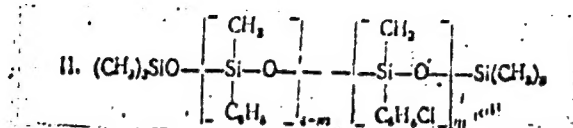
ABSTRACT: The effect has been studied of the chlorine content in the phenyl radical and of the chlorophenyl group content of polymethyl(chlorophenyl)siloxanes on their lubricating properties. Polymers I, II, or III, prepared by hydrolytic condensation and subsequent rearrangement in the presence of sulfuric acid were used:



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when $m = 0-4$.

The lubricating properties were determined on a four-ball apparatus under nitrogen from the diameter of the wear pit on the lower ball, the friction coefficient at various loads, and the character and magnitude of the friction force. The test temperature was 200°C (at this temperature the viscosity of I, II, and III was virtually the same). It was found that for all three polymers, optimum lubricating properties are produced by the introduction of four chlorine atoms per polymer molecule, i.e., at a 16—17% chlorine content. At this chlorine content, the poorest lubricating properties are obtained when all four Cl atoms are concentrated in single phenyl group; such a concentration also considerably impairs thermal-oxidative stability. Polymers containing 1 or 2 Cl atoms per phenyl group have virtually the same lubricating properties. Properties, test conditions, and test results are given for I,

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